REMARKS

Claims 1-21 were pending in this application.

Claims 1-21 have been rejected.

Claims 1, 9, and 17 have been amended as shown above.

Claims 1-21 remain pending in this application.

Reconsideration and full allowance of Claims 1-21 are respectfully requested.

I. REJECTION UNDER 35 U.S.C. § 102

The Office Action rejects Claims 1, 9, and 17 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,141,747 to Witt ("*Witt*"). This rejection is respectfully traversed.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. (*MPEP § 2131; In re Bond, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990)*). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. (*MPEP § 2131; In re Donohue, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985)*).

Witt recites that data is stored in a store queue 64 for later storage in a data cache 44. (*Col. 12, Lines 18-20*). The store queue 64 stores the physical addresses and data of store operations that have been executed. (*Col. 12, Lines 18-29*). *Witt* also recites that load and store instructions may be stored in a load/store queue 60. (*Col. 13, Lines 26-42*).

The Office Action relies on the data cache 44 of *Witt* as anticipating the "buffer" recited in Claims 1, 9, and 17. (*Office Action, Page 3, Second paragraph*). The Office Action relies on the store queue 64 of *Witt* as anticipating the "operand queue" recited in Claims 1, 9, and 17. (*Office Action, Page 3, First paragraph*).

Claims 1, 9, and 17 have been amended to recite that a "first operand" is virtually committed by writing the first operand from an "operand queue" to a "buffer" and by writing an "operand queue address of the first operand" into a forwarding array memory location that is associated with a "floating point write instruction." Claims 1, 9, and 17 have also been amended to recite that the "first operand" is supplied to a "floating point read instruction" by writing the "operand queue address" of the first operand into a forwarding array memory location that is associated with the floating point read instruction, where the operand queue address is "used to retrieve the first operand from the operand queue."

Witt simply recites that data may be stored in the store queue 64 and then written to the data cache 44. *Witt* lacks any mention of a "forwarding array" that operates as recited in Claims 1, 9, and 17. In particular, *Witt* lacks any mention of a "forwarding array" having memory locations associated with both read and write instructions. Also, *Witt* lacks any mention of storing an "operand queue address" (identifying where an operand is stored in an "operand queue") in memory locations associated with both read and write instructions. At most, *Witt* stores the physical addresses of store instructions in the store queue 64. As a result, *Witt* fails to anticipate these elements of Claims 1, 9, and 17.

In addition, Claims 1, 9, and 17 have been amended to recite that a "second operand" is

written directly to a "buffer" bypassing an "operand queue" in response to a "slot in the operand queue where the second operand was to be stored already being virtually committed." *Witt* lacks any mention of storing data directly in the data cache 44 in response to a "slot" in the store queue 64 already being virtually committed. At most, *Witt* stores data in the data cache 44 without reference to whether a slot in the store queue 64 has already been virtually committed. As a result, *Witt* fails to anticipate these elements of Claims 1, 9, and 17.

For these reasons, *Witt* fails to anticipate the Applicant's invention as recited in Claims 1, 9, and 17. Accordingly, the Applicant respectfully requests withdrawal of the § 102 rejection and full allowance of Claims 1, 9, and 17.

II. REJECTION UNDER 35 U.S.C. § 103

The Office Action rejects Claims 2-5, 10-13, and 18-21 under 35 U.S.C. § 103(a) as being unpatentable over *Witt* in view of U.S. Patent No. 5,721,855 to Hinton et al. ("*Hinton*"). The Office Action rejects Claims 6-8 and 14-16 under 35 U.S.C. § 103(a) as being unpatentable over *Witt* and *Hinton* in view of U.S. Patent No. 5,987,593 to Senter et al. ("*Senter*"). These rejections are respectfully traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. (*MPEP § 2142; In re Fritch, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992)*). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. (*MPEP § 2142; In re Oetiker, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); In re*

Piasecki, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984)). Only when a *prima facie* case of obviousness is established does the burden shift to the applicant to produce evidence of nonobviousness. (*MPEP § 2142; In re Oetiker, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993)*). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. (*In re Oetiker, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); In re Grabiak, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985)*).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. (*In re Bell, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993)*). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. (*MPEP § 2142*).

As noted above in Section I, Claims 1, 9 and 17 are patentable. As a result, Claims 2-8, 10-16, and 18-21 are patentable due to their dependence from allowable base claims.

Accordingly, the Applicant respectfully requests withdrawal of the § 103 rejection and

full allowance of Claims 2-8, 10-16, and 18-21.

III. CONCLUSION

The Applicant respectfully asserts that all pending claims in this application are in condition for allowance and respectfully requests full allowance of the claims.

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PATENT

SUMMARY

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@davismunck.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication (including any extension of time fees) or credit any overpayment to Davis Munck Deposit Account No. 50-0208.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date: Feb 28, 2005

William A. Munck
Registration No. 39,308

P.O. Drawer 800889
Dallas, Texas 75380
(972) 628-3600 (main number)
(972) 628-3616 (fax)
E-mail: *wmunck@davismunck.com*